

Abarna_day77

```
#include <stdio.h>
```

```
int main() {
    int T;
    scanf("%d", &T);
    while (T--) {
        int N;
        scanf("%d", &N);
        int A[N];
        for (int i = 0; i < N; i++) {
            scanf("%d", &A[i]);
        }

        int max1 = -100000, max2 = -100000, min1 = 100000, maxVal = -1000000;

        for (int i = 0; i < N; i++) {
            if (A[i] > max1) {
                max2 = max1;
                max1 = A[i];
            } else if (A[i] > max2) {
                max2 = A[i];
            }

            if (A[i] < min1) {
                min1 = A[i];
            }
        }

        for (int i = 0; i < N; i++) {
            if (A[i] != max1 && A[i] != max2) {
                int value1 = (max1 - min1) * A[i];
                int value2 = (max1 - A[i]) * max2;
                if (value1 > maxVal) {
                    maxVal = value1;
                }
                if (value2 > maxVal) {
                    maxVal = value2;
                }
            }
        }

        printf("%d\n", maxVal);
    }
    return 0;
}
```